

US 20140107406A1

(19) United States

(12) Patent Application Publication Hjelle et al.

(10) Pub. No.: US 2014/0107406 A1

(43) **Pub. Date:** Apr. 17, 2014

(54) CARDIAC TREATMENT SYSTEM AND METHOD

(71) Applicant: Mardil, Inc, Plymouth, MN (US)

(72) Inventors: Aaron Hjelle, Andover, MN (US);
William E. Cohn, Bellaire, TX (US);
Richard F. Schroeder, Fridley, MN
(US); James F. Buck, Independence,
MN (US); Karl R. Leinsing, Dover, NH

(US)

(73) Assignee: Mardil, Inc, Plymouth, MN (US)

(21) Appl. No.: 14/053,590

(22) Filed: Oct. 14, 2013

Related U.S. Application Data

(60) Provisional application No. 61/713,351, filed on Oct. 12, 2012.

Publication Classification

(51) **Int. Cl.** *A61F 2/24* (2006.01)

(57) ABSTRACT

Devices and methods for providing localized pressure to a region of a patient's heart to improve heart functioning, including: (a) a jacket made of a flexible biocompatible material, the jacket having an open top end that is received around the heart and a bottom portion that is received around the apex of the heart; and (b) at least one inflatable bladder disposed on an interior surface of the jacket, the inflatable bladder having an inelastic outer surface positioned adjacent to the jacket and an elastic inner surface such that inflation of the bladder causes the bladder to deform substantially inwardly to exert localized pressure against a region of the heart.

